

ITS ARCHITECTURE UPDATE AND STRATEGIC PLAN

NOACA Safety & Operations Council

May 17, 2019

ACTION REQUESTED

No action requested. This item is for information and presentation only.

PREVIOUS ACTION

None.

BACKGROUND

ITS Stakeholder Workshop #2

- May 7, 8 and 9
- Independence, Brunswick, Mentor



BACKGROUND



ITS Strategic Plan:

- Draft shared April 29, can be found on project website
- Identifies ITS projects reflecting stakeholder needs
- Comments through May 17

BACKGROUND



Information Management

- Enhance communications and info sharing



Traffic Management

- Improve congestion mitigation
- Provide early warning of poor visibility
- Improve signal interconnects and coordination
- Expand traffic signal preemption for EVs
- Better info on incidents on major routes



Public Transportation

- On-time performance
- Efficiency of demand responsive service
- Transit connections
- Event, incident, and emergency coordination

BACKGROUND



Traveler Information

- Travel times to public
- Incident info to public
- Highway closures to public
- Arterials closures to public



CVO and Freight Management

- Improve hazardous cargo tracking and routing
- Improve intermodal freight management
- Provide real-time truck parking availability



Maintenance and Construction

- Work zone safety
- Advanced and up-to-date work zone info
- Roadway surface conditions data

BACKGROUND

Incident and Emergency Management

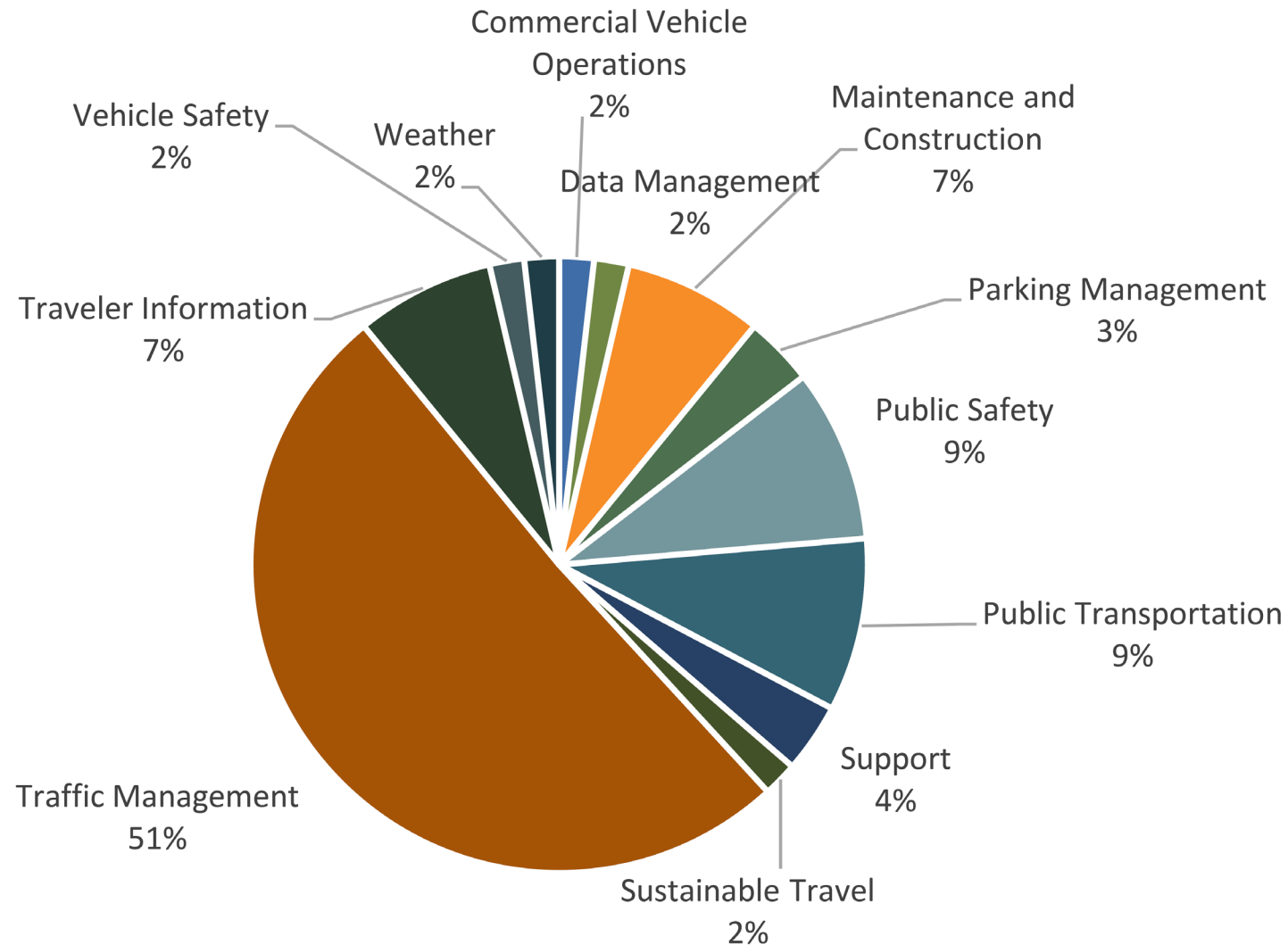
- Identify alternate routes
- Improve alternate route traffic management
- Improved incident detection
- Improved incident management and coordination
- Emergency notification / dispatch and response times

Transportation Security

- Security and safety monitoring of public spaces
- Improved evacuation plan implementation

BACKGROUND

Projects By ITS Area:



PROJECT TIMEFRAMES

In short term, focus on

- Low cost projects like local signal enhancements
- Expansion of current solutions
- Support ITS in transit

Medium term

- Potential for regional TMC
- Integrating maturing TSMO projects

Long term

- Projects relying heavily on new technology



PRIORITIZATION CRITERIA

Identified projects of greatest regional importance/urgency

Criteria included:

- Relationship between projects
- Project relevance to regional needs
- Potential project costs
- Project maturity

Time Frame	Project ID	Project Name	Score
Short term	2	ODOT Advanced Traffic Management System (ATMS)	0.58
	10	Expand Traveler Information Delivery Methods	0.52
	1	Freeway Management System (FMS) Expansion	0.42
	22	I-90 Lake Effect Corridor	0.41
	11	Maintenance Vehicle Upgrade	0.36
	3	Traffic Monitoring Management System Enhancements	0.35
	12	Expand Road Weather Information System (RWIS)	0.35
	24	ODOT Traffic Monitoring Permanent Count Program	0.25
	21	DriveOhio City Use Cases	0.19
	25	Creation of a GIS Data Centralization Center	0.16

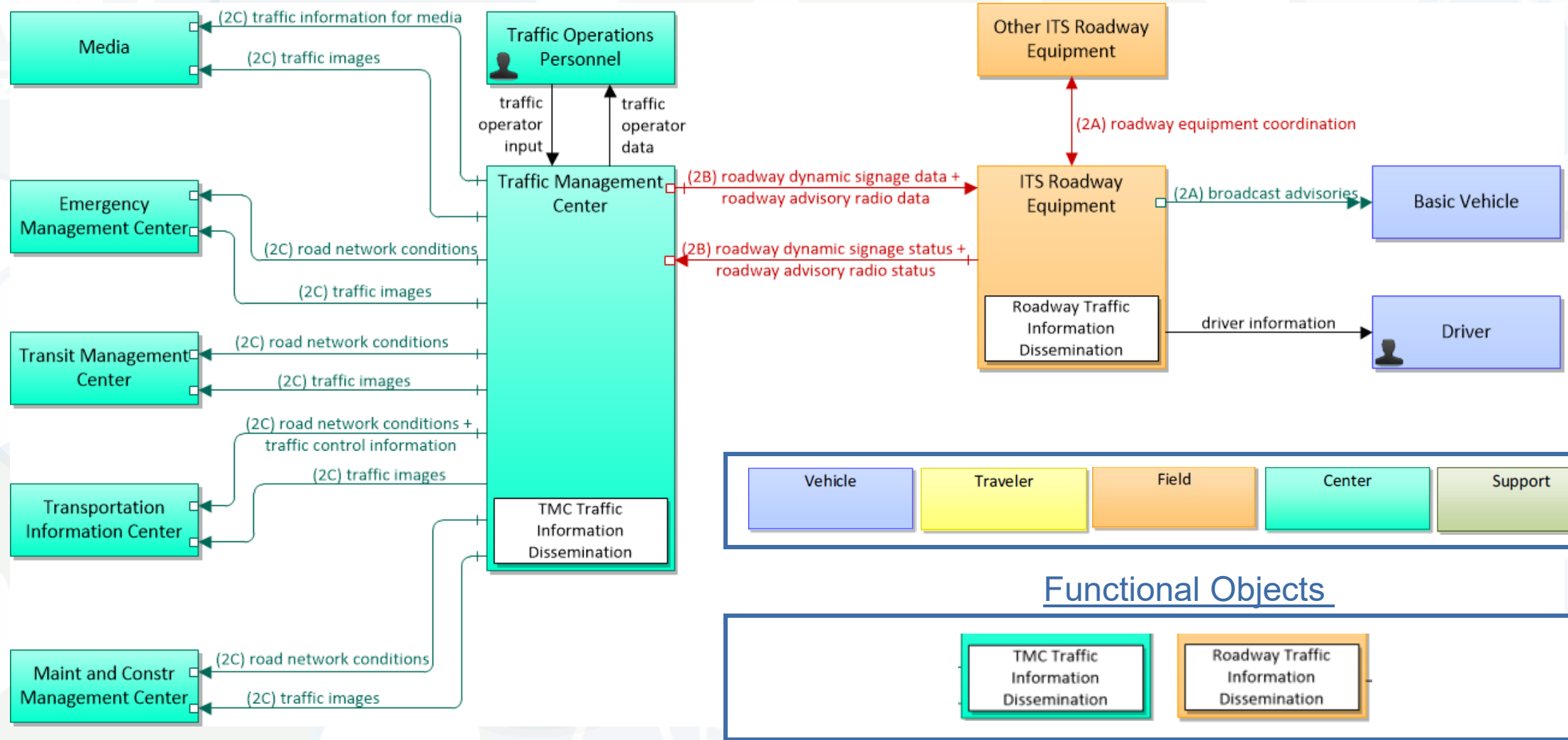
BACKGROUND

2019 ITS Architecture Update

- Inventory of existing and planned or potential ITS elements
- Stakeholders and roles based on transportation services
- Service packages for ITS functionality and data exchange



SERVICE PACKAGE DIAGRAM



USING THE WEBSITE

Click on “Stakeholders” to view:

- Stakeholder description

Click on “By Stakeholder” to view:

- ITS elements assigned to each stakeholder

Scroll down to find stakeholders listed (alphabetical order)

NORTHEAST OHIO
Lake
Cuyahoga
Lorain
Medina
AREAWIDE COORDINATING AGENCY
NOACA: Planning For Greater Cleveland

NOACA Regional ITS Architecture

Inventory by Stakeholder

Each stakeholder is associated with one or more systems or "elements" that make up the regional transportation system. This inventory allows each stakeholder to easily identify and review the information for all elements that they own and operate.

Stakeholder	Role	Element
Akron METRO Regional Transit Authority	Owns	METRO Administration
Case Western Reserve University	Owns	Case Western Reserve University
	Owns	Case Western Reserve University
	Owns	Case Western Reserve University
	Owns	Case Western Reserve University
City of Cleveland	Owns	311 Non-Emergency
	Owns	City of Cleveland
	Owns	City of Cleveland
	Owns	City of Cleveland
	Owns	City of Cleveland
	Owns	City of Cleveland
	Owns	City of Cleveland

BACKGROUND

NOACA Intelligent Transportation System (ITS) Architecture Comprehensive Update Project Schedule (Updated 1/16/2019)

Task		2018									2019								
		Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	Project Management/Administration		★																
2	Communication/Stakeholder Engagement Plan						★							★					
3	Identification of Partners																		
4	Regional Needs Analysis/Gap Assessment																		
5	Mapping of Current and Proposed System																		
6	Documentation																		
7	Service Packages																		
8	Website																		
9	Develop a ITS Strategic Plan																		
10	Interagency Agreements																		
11	Maintenance Plan																		

★ Kickoff Meeting

★ Stakeholder Workshops

NEXT STEPS

Staff and the consultant team will work with stakeholders to incorporate their feedback on the draft ITS Strategic Plan and updated ITS Architecture into the final versions of both documents to be completed later this summer.



NOACA will **STRENGTHEN** regional cohesion, **PRESERVE** existing infrastructure, and **BUILD** a sustainable multimodal transportation system to **SUPPORT** economic development and **ENHANCE** quality of life in Northeast Ohio.

